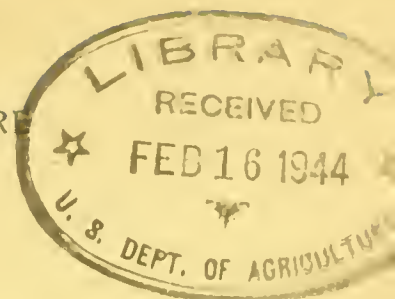


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UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics



Agricultural Economics Bibliography No. 88

COTTON LINTERS

Selected References in English, 1900-July 1940

Compiled by Emily L. Day
Library Specialist in Cotton Marketing
Under the Direction of Mary G. Lacy, Librarian
Bureau of Agricultural Economics

Washington, D. C.
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FOREWORD

This bibliography lists references to books, pamphlets and periodical articles describing methods of recovering linters, the place of linters in commerce, quality, and uses for linters. References to methods of delinting cottonseed for planting purposes are omitted. Bibliographies in publications listed in the bibliography have been checked in addition to the sources listed in "Sources Consulted."

Call numbers following the citations are those of the U. S. Department of Agriculture Library, unless otherwise noted. "Libr. Cong." indicates that the publication is in the Library of Congress. Abbreviations of names of periodicals are taken from Miscellaneous Publication No. 337, "Abbreviations Used in the Department of Agriculture for Titles of Publications," issued by the Department.

Mary G. Lacy, Librarian
Bureau of Agricultural Economics
U. S. Department of Agriculture

October, 1940.

DEFINITION

Linters: A commodity composed of the residue of vegetable hair found on cottonseed after ginning, and recovered by reginning or delinting, in one or more operations. Linters is generally produced as a step in preparing cottonseed for decortication and oil extraction or expression; when recovered from cottonseed hulls after decortication, it is generally marketed under the name "Hull Fiber." The quality or grade of linters is influenced by the amount of residual hair on the seed, the intensity of and the number of delinting operations, and is generally based on the distribution of the long and short hairs. High grades of linters are felted into mattress, upholstery, and other felts. The lower grades are generally consumed as a source of alpha cellulose, in the plastics and explosives industries. -- G. S. Meloy, Senior Marketing Specialist, Agricultural Marketing Service.

SOURCES CONSULTED

Card catalogues of the following libraries:

- U. S. Department of Agriculture
- U. S. Department of Agriculture, Bureau of Agricultural Economics
- U. S. Department of Agriculture, Division of Cotton Marketing
Branch Library

Indexes and abstract journals:

- Agricultural Index, 1916-18 to July 1940. Published by
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The method is described.
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Locations of "copies of the official standards of the United States for American cotton linters...for reference and study purposes."

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A letter to the editor showing that in order to sell linters they must be clean and telling of the author's trouble in keeping them clean.

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Examples of the rates are cited.
90. Belligerents hold huge war reserves of cotton linters. Big takings during last three years indicate present need not acute. Cotton Trade Jour. 19(36): 5, 8. Sept. 9, 1939. 72.8 C8214
91. Brazil increases export of cotton linters 100 per cent during 1937. Cotton Trade Jour. 18(43): 6. Oct. 8, 1938. 72.8 C8214
92. Brazil's exports of cotton linters. Textile Colorist 60(719): 771. Nov. 1938. 306.8 T31
Exports of linters from Brazil in 1937 are given.
93. Chemical linters supplies run low in all locations. Prices on all grades high above last year's, low grade prices triple. Cotton Trade Jour. 20(20): 1. May 18, 1940. 72.8 C8214
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98. Houston maritime association. Rules...revised and reissued January 1, 1938. 16pp. Houston, 1938. 287 H812
The rules relate to cotton and linters.
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Report before the Interstate Commerce Commission, ex parte 115. Statistics of production and railway tonnage of cotton, linters, cottonseed, and cottonseed cake and meal are included.
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Comments on quotations from Tompkins' "Cotton and Cotton Oil," with special reference to value of products, including linters, in 1901.
101. Manufacturers record. Blue book of southern progress. 94pp. Baltimore, 1939. 252 M312
Issued annually.
Includes statistics of linters production and value, p. 28.
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Rates on cotton and linters to Bremen, Hamburg, Gdynia and Rotterdam for July are given.
103. Record breaking consumption of linters reported. Early figures indicate rate is highest since 1918-19 period. Cotton Trade Jour. 20(25): 1. June 22, 1940. 72.8 C8214.
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References and acknowledgements, pp. 55-56.
Linters, p. 32. Linters prices by months and quarters, 1913-1918, pp. 42-43.
106. Traquair, John. Fibrous raw materials developments. Paper Trade Jour. 94(26): 34-37. June 30, 1932. 302.8 P196
Notes on linter production, p. 37. Contains tables showing linters production, price, and exports, 1926-1931; production and value of first cut, mill run, and second cut, 1926-1931; and freight rates per 100 pounds from Dallas, Tex., Greenville, Miss., and Atlanta, Ga., to Appleton, Wis., Dayton, Ohio, and New York, N. Y.

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544pp. Washington, D. C., 1938. 1 Ag84Yas
Partial contents: Exports of...[linters] annual 1911-36,
pp. 387-388; Exports (domestic) of...[linters] by countries,
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108. U. S. Dept. of agriculture. Agricultural marketing service.
Average monthly prices of cotton linters, grades 1 to 7,
season 1938-39. 1p., processed. Washington, D. C., 1939.
1.9 Ec733Avm
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Linters demand outstrips rising production trend. Prospect
is for carryover materially below 1939 or 10-year average.
Cotton Trade Jour. 20(24): 7. June 15, 1940. 72.8 C8214
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Dept. Agr. Bur. Agr. Econ. Foreign Crops and Markets (Sup.)
36(12): 183-190. Mar. 26, 1938 1.9 St2F
"Cleaned cotton linters, which were formerly dutiable
at 120 crowns per 100 kilograms (1.90 cents per pound)
will be free of duty, provided they are not pressed.
Pressed linters will be dutiable at 0.95 cent per pound
or one-half the pre-agreement rate."
112. U. S. Dept. of commerce. Bureau of foreign and domestic commerce.
British India. Cotton linters--Export duty removed. U. S.
Dept. Com. Bur. Foreign and Dom. Com. Com. Rpts. no. 33,
p. 752. Aug. 19, 1939. 157 C76D
"The former tax of 2 annas per bale on cotton linters
consumed in British India or exported therefrom has been
removed, effective July 1, 1939, according to a report
from the Office of the American Trade Commissioner,
Calcutta, July 20."- Entire item.
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Foreign markets for cotton linters, batting, and waste.
U. S. Dept. Com. Bur. Foreign and Dom. Com. Spec. Consular
Rpts. 80, 84 pp. Washington, D. C. 1918. 157.7 C76S no. 80.

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"Under a decree of June 14, 1938, the French special tax on imports of cotton linters and waste was increased from 1 franc to 2 francs per 100 gross kilos, according to a cablegram of June 16 from the American Embassy at Paris."--Entire item.

115. U. S. Dept. of commerce. Bureau of the census. Cotton production and distribution, season of 1938-39. Prepared under the supervision of Harvey J. Zimmerman. U. S. Dept. Com. Bur. Census Bul. 176, 52pp. Washington, D. C., 1939. 157:41 B89
An annual publication.

Tables give production of linters, 1899-1938; production of linters by states, 1935-1938; average gross weight of bales, by states, 1936-1938; linters consumed and stocks in consuming establishments at end of year, 1909-1939, and by states, 1936-1939; exports of linters, 1921-1939; exports by country of destination, 1931-1939; linters produced, shipped out, and on hand at close of month for oil mills, by months, August 1934-July 1939; quantities of linters obtained per ton of seed crushed, by states, for the years ending July 31, 1937, 1938, and 1939; production of linters (running bales) by states, for the years ending July 31, 1937, 1938, and 1939, by quality produced; quantity and value of linters produced, 1919-1939, and by states for 1939.

116. U. S. Dept. of commerce. Bureau of the census. Unspinnable cotton in public storage, letter from the Director of the census in response to Senate resolution of March 24, 1920, furnishing certain information in regard to unspinnable cotton in public storage and at concentration points. 66th Cong. 2d sess. Senate Doc. 263, 2 pts. [Washington, D. C., 1920] 148 7671

Contains statements as to the quantity of linters held in public storage and at compresses, February 20, 1920; quantity held by the Government on December 31, 1918; quantity of the 1919 crop to be taken over by the Government; Government uses of linters; quantity produced from January 1, 1919, to March 31, 1920; and the estimated total quantity of linters in the United States March 31, 1920.

117. U. S. Federal trade commission. Cottonseed industry. Letter... transmitting a report...on the cottonseed industry, submitted in pursuance of House resolution no. 439, sixty-ninth Congress. 70th Cong., 1st sess. House Doc. 193, 37pp. Washington, D. C., 1928. 148 8898

Table 5 includes price quotations for linters at Dallas, Texas, on the 1st and 15th of each month, during the seasons 1925-26 and 1926-27.

118. U. S. Interstate commerce commission. Cottonseed, its products and related articles. Report proposed by John T. Money...and George Esch. 334 pp. [Washington, D. C., 1931] (No. 17000 Rate structure investigation, part 8) 168.1 C82
Cottonseed linters and fiber, pp. 133-159. Freight rates are discussed.
119. U. S. War dept. Corps of engineers, U. S. army. The ports of Charleston, S. C. and Wilmington, N. C. (Revised 1934). U. S. War Dept. Corps Engin. U. S. Army Port Ser. no. 9, 191 pp. Washington, D. C. 1935. 152.25 P83 no. 9, rev. 1934.
Water-borne commerce of Wilmington, N. C., from 1924 to 1933, inclusive, including exports of cotton linters, p. 175; Coastwise shipments of cotton linters, p. 177.
120. United States production, consumption, exports and imports of cotton linters. Rayon Organon 9(11): 150. Oct. 1938. 304.8 T3128
121. Ward, A. L. Cottonseed--"Farm Cinderella." One-time step-child of southern farms now second most valuable cash crop. Mfrs. Rec. 105(7): 32-33. July 1936. 297.8 M31
Production, value and uses of linters are given.

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122. Allies to build powder plant in Memphis region. Nitro-cellulose production to use quantities of linters, or even lint. Cotton Trade Jour. 20(23): 1. June 8, 1940. 72.8 C8214
The present supply of linters is also discussed.
123. Association of southern agricultural workers. Proceedings of 33rd annual convention in 1932. 132pp. [Birmingham, Ala., 1932] 4 C82 33rd, 1932.
A new chapter in the history of cotton, by Louise Huston, p. 103 (manufacture of bemberg from cotton linters).
124. Barrow, E. R. Chemical laboratory control. Cotton Oil Press 17(6): 23. Oct. 1933. 307.8 C8234
"Abstract of address...at Tri-State Cottonseed Oil Mill Superintendents' Convention."
Many uses of linters are mentioned.
125. Beadle, Clayton, and Stevens, Henry P. The use of cottonseed products. Paper Trade Jour. 50(4): 52, 56; (5): 40, 42. Jan. 27, Feb. 3, 1910. 302.8 P196
"Cottonseed products previously regarded as waste materials are treated under two heads: (a) utilization of cotton separated from the seed hulls as a paper-making material, and (b) utilization of the hulls themselves as food for cattle...Good strong paper can be produced without starting with long fibered cotton. Brazilian, U. S., and Indian seed was involved in the tests.- Guy E. Marion."- Chem. Abs. 4(8): 1100. Apr. 20, 1910.

126. Boger, H. Batterson. Vegetable hair. Cotton linters becomes an international industry. Cotton Trade Jour. 10th Internatl. ed. 18(28): 160-163. 1938. 72.8 C8214
Production and uses of cotton linters are noted.
127. Bohnson, V. L. The manufacture and properties of acetate yarn. Amer. Dyestuff Rptr. 25(13): P350-P356. June 29, 1936. 306.8 Am3
Address at meeting of Northern New England Section, American Association of Textile Chemists and Colorists, April 3, 1936.
"There are two important essential materials in the manufacture of cellulose acetate: A. Purified cotton linters, B. Acetic anhydride."
128. Booker, Harold C. Manifold uses of cottonseed and its by-products. Mfrs. Rec. 92(19): 83. Nov. 10. 1927. 297.8 M31
Uses of linters are mentioned.
129. Brand, C. J. Crop plants for paper making. U. S. Dept. Agr. Bur. Plant Indus. Cir. 82, 19pp. Washington, D. C., 1911. 1 P69c
"Printed on paper made wholly or in part from crop wastes and by-products from corn, broom corn, rice, and cotton."
Cotton-hull fiber and stalks as source for paper, pp. 13-14. Page 19 is made from cornstalks and cotton hulls.
130. Brand, C. J. The utilization of crop plants in paper making. U. S. Dept. Agr. Yearbook 1910: 329-340. 1911. 1 Ag84y
Cotton-hull fiber, pp. 334-335.
131. Bresser, A. The influence of the pretreatment of cotton in the quality of nitro-cellulose. Brit. Plastics 10(110): 60-61. July 1938. 309.8 B76
"The processes of soda-boiling and bleaching of cotton linters can be so controlled that the behavior of the cotton on nitration can be guaranteed.-S."- Textile Res. 9(10):385. Aug. 1939.
132. Briggs, Frank A. Outside and inside the cottonseed. Farm and Ranch 58(1): 9, 20. Jan. 1939. 6 T31
Uses of linters are noted.
133. The British Bemberg works. Managers visit cuprammonium factory at Doncaster. Textile Weekly 14(343): 123-126. Sept. 28, 1934. 304.8 T3127
Manufacture of "Bemberg" or cuprammonium rayon is described.
"The point from which cuprammonium manufacture starts is cotton linters."

134. Callahan, M. J. Relation of cotton to lacquers. Jour. Chem. 7(8): 1821-1832. Aug. 1930. 381 J826

Literature cited, p. 1832.

"The manuf. of cellulose nitrate from cotton linters is outlined. A cellulose nitrate for use in lacquers should have a N content of 11.4 to 12.4% and be chem. stable. The viscosity of the dispersion is unrelated to the chem. consts. of the mol. The viscosity of the cellulose nitrate is important; the introduction of a low-viscosity nitrate increased the annual production \$20,000,000 in 10 years. The viscosity of the nitrate cannot be modified by pretreatment of the cellulose without degradation of the latter. The tensile strengths of cellulose nitrates prepd. from cotton, wood pulp, and vegetable fiber were of the same order of magnitude.- F. A. Simmonds."- Chem. Abs. 24(22): 6038. Nov. 20, 1930.

135. Cellulose used for rayon production in 1937 (revised). Rayon Organon 9(4): 56. Mar. 1938. 304.8 T3128
Use of linters is included.

136. Chemical cotton--Its use and development. Rayon and Synthetic Yarn Jour. 13(10): 48-49. Oct. 1932. 304.8 R21

From the "Hercules Mixer for September."

Describes manufacture of chemical cotton and quality of linters needed. Two types are manufactured: the loose, used for conversion into nitrocellulose, and for film, celluloid, rayon, etc; the sheeted, used for viscose rayon and high-grade papers. "The viscosity of the cotton when dissolved in a standard cuprammonium solution...is the basic difference between different grades."

137. Chemical lint declining (?) Report states Viscose Co. will use wood pulp. Bedding Mfr. 31(2): 23-24. Sept. 1935. 309.8 B39

Extracts from letters by linter dealers giving views as to the rumored decline in the consumption of linters for chemical purposes.

138. Clark, Roscoe C. The cottonseed products industry. Jour. Accountancy 54(3): 170-191. Sept. 1932. 325.8 J82

Comment is "restricted to the products obtained through the operation of what are known as crude-oil mills. The various operations of refining and further manufacture of these products" are not discussed. Discusses grading, milling processes, and accounting for cotton-oil mills and lists products (including linters) and their uses, pp. 190-191.

139. Coleman, Arthur. The marvelous story of cottonseed. Acco Press 13(8): 6-10. Aug. 1935. 6 Ac2

Reprinted from Holland's magazine of the South.

A brief history of the development of uses for cottonseed products and linters is given.

140. Cotton brick may be next. Oil Mill Gazetteer 44(2): 21. Aug. 1939.
307.8 Oi53
The use of low grade cotton and linters in the manufacture of bricks for building purposes is discussed.
141. Cotton linters again. Bedding Mfr. 35(1): 52. Aug. 1938.
309.8 B39
"Sigmund Scisorek, Burbank, California, has been granted a patent on a straw which contains an insert of cotton linters flavored to individual taste. When the straw is inserted in plain water the sipper at the other end of the straw has a drink of flavored soda pop."
142. Cotton linters to be subject of special study. New Orleans 'cotton laboratory' to seek new uses for 'waste' product. Cotton Trade Jour. 19(15): 2. Apr. 15, 1939. 72.8 C8214
143. Cotton-textile institute, inc. Report on cotton waste and linters. 15pp., processed. New York, Cotton-textile institute, inc.; 1936. 304 C82R
"Cotton linters compete with lint cotton directly and indirectly. The best grades of linters are used interchangeably with cotton waste in the form of batting, wadding, mattress felts and upholstery stuffing. The cheaper grades which are too short to be garnetted are used to a large extent in the chemical industry and one of the chief uses is in the manufacture of rayon which, of course, competes with long staple cotton."
144. Courtaulds, ltd. Fibro, its manufacture and uses. 23pp. [London, Bemrose & sons ltd., 1935?] 304 C83
Contains a description of the production of fibro by the "Viscose" process from cotton linters, or wood pulp cellulose.
145. Esselen, Gustavus J., and Scott, Walter M. Cellulose as a chemical raw material. Chem. Indus. 43(1): 14-19. July 1938. 381 C426
Cotton linters and wood pulp as sources of cellulose are compared.
146. Gilbert, J. C. Expanding uses for cotton seed and linters. Com. and Finance 17(6): 356-357. Feb. 8, 1928. 286.8 C737
147. Hoff, Dr. G. P. Rayon and "cellophane." Amer. Silk and Rayon Jour. 55(11): 13-16. Nov. 1936. 425.8 Am3
Address at Dearborn Conference of Agriculture, Industry and Science, Dearborn, Michigan, 1936.
The quantity of cotton linters used in rayon manufacture is estimated.
Also in Textile Colorist 56(693): 588-591. Sept. 1936.

148. Howe, H. E., ed. Chemistry in industry; a cooperative work intended to give examples of the contributions made to industry by chemistry. 2 v. New York, The Chemical foundation, inc. [1934] 388 H83
V. 1, Ch. XVIII, Photography, by S. E. Sheppard, pp. 312-328. The method of producing celluloid film from linters is briefly outlined.
149. India may make artificial silk from linters. Experiments of cotton committee prove cost reasonable, quality better. Cotton Trade Jour. 19(6): 6. Feb. 11, 1939. 72.8 C8214
Experiments of the Indian Central Cotton Committee are noted.
150. Innumerable uses of cottonseed products. Mid-So. Cotton News 12(11): 4. June 1935. 72.8 C8295
Uses for linters are listed.
151. [Johnston, Oscar] Urge government to buy 400,000 bales of linters. National cotton council head stresses usefulness in national defense. Cotton Trade Jour. 19(36): 1. Sept. 9, 1939. 72.8 C8214
152. Kao, Chang-Keng, and Yu, Chi-Hsing. Studies on cottonseeds. II. Utilization of lint and hulls. Jour. Chem. Engin. China 3(4): 331-339. Dec. 1936. Libr. Cong.
Literature cited, p. 339.
"Cottonseed lint-hull mixt. is successfully sepd. by the action of HCl gas without previous heating. The lint can be purified and made fit for more valuable uses, such as nitration, or hydrolyzed to give reducing sugars...- C. L. Teseng."- Chem. Abs. 31(8): 2845. Apr. 20, 1937.
153. Kauders, E. R. Looking ahead! Chemicals versus bedding. Bedding Mfr. 27(6): 36. Jan. 1934. 309.8 B39
The author suggests that the Government control the distribution of linters so that at least 50 per cent of the production would be reserved for the bedding and batting industries. The chemical trades are taking increasing quantities.
154. Kitchel, Lloyd. Cotton cellulose as a chemical raw material. Chem. Markets 27(6): 577-581. Dec. 1930. 381 C426
Describes the purification plant of the Hercules Powder Company, Hopewell, Va., and the process of purifying cotton linters in use there.
Also in Fibre and Fabric 84(2396): 8-11. Jan. 3, 1931.
155. Kress, Otto, and Wells, Sidney D. Pulp from cotton linters. Some further mill trials on the pulping of second-cut cotton linters. Paper 26(7): 320, 322, 324, 326. Apr. 21, 1920. 302.8 P198

Abstracts of the literature, p. 326.

Report of "two pulping trials and one paper machine" run made for the purpose of testing linters as a source of pulp for paper making.

156. Kress, Otto. Suitability of cotton hull fibre for pulp and paper manufacture. Paper Indus. 1(12): 1127-1134. Mar. 1920. 302.8 P1923
Experiments are described.
157. Kress, Otto, and Wells, Sidney D. The suitability of second cut cotton linters, cotton shavings and hull fiber for paper manufacture. Paper Indus. 1(4): 267-270, 278. July 1919. 302.8 P1923
"For presentation at the June meeting of the Technical Association of the Pulp and Paper Industry."
The authors conclude that "from the experimental data we can see no reason why a high grade stock cannot be produced from second cut cotton linters, shavings and hull fiber."
158. Kress, Otto, and Wells, Sidney D. Utilization of delint for paper making. Cotton Oil Press 3(3): 27-36. July 1919. 307.8 C8234
"In this paper, a contribution from the Forest Products Laboratory of the U. S. Department of Agriculture located at Madison, Wis., the authors describe investigations in which an effort was made to ascertain the suitability of second cut cotton linters, cotton shavings, and hull fiber for paper manufacture. It is concluded that a high-grade paper stock can be produced from these materials."- Expt. Sta. Rec. 41(8): 734. Dec. 1919.
159. Levey, H. A. Cellulose sources as raw materials for chemical manufacture. Indus. and Engin. Chem. (News Ed.) 14(4): 70. Feb. 20, 1936. 381 J825
"a- Cellulose from wood, now being produced in commercial quantities, is equal if not superior to cotton linters in the prepn. of viscose and cellulose derivs. The viscosity of the cuprammonium soln., as well as of the derivs. of this cellulose is even higher than that of the cuprammonium soln. and derivs. of the better grades of cotton cellulose. Generally a cellulose of high viscosity yields a deriv. of relatively high tensile strength. It is predicted that in the future much a-cellulose of more or less equiv. grades will be obtained from grasses grown in the South.-F.A.S."- Chem. Abs. 30(10): 3631. May 20, 1936.
160. Levey, H. A. Some comparative costs of cellulose as a chemical raw material. Chem. Indus. 35(4): 303-305. Oct. 1935. 381 C426
Costs of cellulose from linters and other sources are compared.

161. Lickle, C. H. Producing desirable "chemical" linters. Cotton Oil Press 16(5): 9-10. Sept. 1932. 307.8 C8234
Suggestions for care of linters at the oil mill so that they will be suitable for bleaching for use in the manufacture of celluloid, rayon, safety glass, etc.
162. Lindenberg, H. A. Cotton linters for paper making. Paper 27(27): i.e. 28(2): 20, 36. Mar. 16, 1921. 302.8 P198
"Linters are being used extensively in roofing felt and fiber board as well as in bond paper mills.-H. H. Harrison."- Chem. Abs. 15(21): 3745. Nov. 10, 1921.
163. Macormac, A. R., and Basore, C. A. Possible methods for increasing the consumption of cotton and cotton by-products. Ala. Polytech. Inst. Engin. Expt. Sta. Bul. 9, 13pp. Auburn, 1939. 280.9 A112
Bibliography, p. 13.
Research projects based on linters are included.
164. Making rayon from cotton linters. Agr. Life 5(7): 6-7, 39. July 1938. 25 Ag8
Plans for producing rayon in the Philippines are noted. Methods of manufacture are described.
165. Meloy, G. S. Chemistry and cotton by-products. Chemicals 30(16): 9. Oct. 15, 1928. 306.8 C42
Uses of linters are noted.
166. Meloy, G. S. Cottonseed also goes to market. U. S. Dept. Agr. Bur. Agr. Econ. Agr. Situation 21(12): 12-13. Dec. 1, 1937. 1 Ec7Ag
The probable quantities of cottonseed products and linters from this year's crop of cottonseed are estimated and uses are noted.
Extracts in Cotton and Cotton Oil Press 39(1): 15. Jan. 1, 1938.
167. Meloy, G. S. Standard linters classifications. U. S. Bureau tests various grades to determine most advantageous use of each sort. Textile Wastes 1(1): 12-14, 25. Oct. 1930. 304.8 T292
The author describes tests of mattress felts made from cotton linters of standard grades 1, 2, and 3 and in each of the three standardized characters. The relation between quality of mattress felt and grade of linters is shown.
168. Meloy, G. S. Utilization of the standard grades for cotton linters. Bedding Mfr. 38(1): 48-51. Feb. 1940. 309.8 B39
Address before the convention of the National Association of Bedding Manufacturers, Chicago, Illinois, December 14, 1939.

169. Miller, Robert P. From cotton to a colorful finish. How this fluffy product of nature is utilized by the chemist in making "Duco" lacquer. Dupont Mag. 32(6): 12-13, 16. June 1938. 309.8 D92
The use of linters in the manufacture of lacquer is described.
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